

I CLAIM:

1. A facial or neck patch or mask for treatment of facial or neck skin aging in a mammalian subject comprising:

a flexible patch or mask body formed of a porous material, said patch body sized and dimensioned to conform to a facial or neck skin area of said subject;

attachment means connected to the patch or mask body for securely, removably attaching the patch or mask in contact with one or more contoured facial and/or neck skin areas of the subject;

at least one anti-aging effective compound provided in chemical communication with an undersurface of the patch or mask body to effectuate delivery of the anti-aging compound to the contoured facial and/or neck skin area in an effective amount, and for an effective period of time, to prevent or alleviate symptoms of skin aging in the facial and/or neck skin area to which the patch or mask is applied.

2. The facial or neck patch or mask of claim 1, wherein the flexible patch or mask body is sized and dimensioned to conform to one or more contoured facial and/or neck skin area(s) of the subject selected from an orbital margin, nasal skin area, labial margin, mandibular, maxillary, or temporal lateral facial skin area, chin, jawl and/or neck skin area of the subject.

3. The facial or neck patch or mask of claim 1, wherein the facial or neck patch or mask conforms and stretches in conjunction with normal facial and neck skin movements as occur during jaw flexure, head turning, and eye opening and closure.

4. The facial or neck patch or mask of claim 3, wherein the patch or mask body is constructed for expansion and/or elastic flexure in all directions planar to an undersurface of the patch or mask that is applied to a facial or neck skin area to be treated.

5. The facial or neck patch or mask of claim 1, wherein the attachment means is selected from: a tie, elastic or other manual closure means that attaches to opposing lateral margins of the patch or mask and encircles a head of the subject; one or more mounting elements attached to opposing margins of the patch or mask and adapted for engaging an ear or other securely engageable anatomical feature of the subject's face; and/or adhesive gel, strips, tape or other adhesive means connected to an undersurface of

the patch or mask or interposable between the undersurface of the patch or mask and a skin surface area to be treated to provide for adhesive attachment of the patch or mask thereto.

6. The facial or neck patch or mask of claim 1, comprising an orbital patch or mask sized and dimensioned to conform to an orbital margin of the subject for treatment of periorbital skin aging in the subject.

7. The orbital patch or mask of claim 6, which conforms to one or more portions of the orbital margin of the subject selected from a supraorbital margin, infraorbital margin, lateral orbital and/or medial orbital margin of the eye.

8. The orbital patch or mask of claim 6, wherein the patch or mask comprises one or more separate or conjoined, countoured sections individually shaped and dimensioned to conform to a selected portion of the orbital margin.

9. The orbital patch or mask of claim 8, wherein said one or more separate or conjoined, countoured sections are individually shaped and dimensioned to conform to a portion of the orbital margin selected from: a lenticular area of the supraorbital margin; a lenticular area of the infraorbital margin; a medial orbital margin; and a lateral orbital margin.

10. The orbital patch or mask of claim 8, wherein said one or more separate or conjoined, countoured sections are conjoined in a single patch or mask having a unitary body or by interconnecting member(s) joining the individual sections in an anatomically integrated array of sections.

11. The facial or neck patch or mask of claim 1, comprising a nasal skin patch or mask sized and dimensioned to conform to a nasal skin surface of the subject for treatment or prevention of nasal skin aging in the subject.

12. The facial or neck patch or mask of claim 1, comprising a labial skin patch or mask sized and dimensioned to conform to a labial margin of the subject for treatment or prevention of perilabial skin aging in the subject.

13. The facial or neck patch or mask of claim 1, comprising a neck skin patch or mask sized and dimensioned to conform to a neck skin surface of the subject for treatment or prevention of neck skin aging in the subject.

14. The facial or neck patch or mask of claim 1, wherein the patch or mask effectively and evenly delivers the anti aging effective compound to a facial or neck skin surface to be treated in a delayed release mode or formulation to provide extended, controlled release of the anti-aging compound for a period of time effective to prevent or reverse one or more symptoms of periorbital skin aging in the subject.

15. The facial or neck patch or mask of claim 1, wherein the patch or mask effectively delivers the anti aging effective compound to achieve an effective concentration anti aging effective compound over an extended period effective to reduce or prevent one or more symptoms of facial and/or neck skin aging selected from:

- a) Degeneration of the microvascular system;
- b) Flaccidity and development of wrinkles due to a decrease in and/or crosslinking of collagen, accumulation of glucosaminoglycans (base substance) and/or solar elastosis (elastin clumping);
- c) Flattening of the retial cones, associated with a reduction in thickness or area between the dermis and epidermis through which substances are exchanged for healthy metabolism of the epidermis;
- d) Restricted regenerative turnover in the epidermis associated with defective hornification, leading to drying out of the skin, roughness of the skin, chapping of the skin and/or flaking;
- e) Defective regulation of cell division (proliferation) and cell maturation (differentiation) in the epidermis associated with cellular atypia, atrophies, and loss of polarity; and/or
- f) Local hyper- and hypopigmentation and/or abnormal pigmentation (age spots).

16. The facial or neck patch or mask of claim 1, wherein the patch or mask body, or at least an undersurface portion thereof, serves as a substrate or reservoir for receiving and retaining the anti-aging effective compound.

17. The facial or neck patch or mask of claim 1, wherein the anti-aging effective compound is absorbed, adsorbed, or otherwise admixed with or invested in a material of the patch or mask body in direct chemical communication between the patch or mask body and the undersurface thereof through pores, fissures, perforations, and/or other communication channels provided within the patch or mask body or a layer thereof adjacent the undersurface.

18. The facial or neck patch or mask of claim 1, wherein the attachment means comprises a bioadhesive material.

19. The facial or neck patch or mask of claim 1, wherein the bioadhesive serves a dual purposes of mediating affixation of the patch or mask to the facial or neck skin and providing a carrier or delivery vehicle for incorporation and delivery of the anti-aging effective compound(s).

20. The facial or neck patch or mask of claim 1, wherein the anti-aging effective compound is an anti-oxidant.

21. The facial or neck patch or mask of claim 20, wherein the anti-oxidant is Coenzyme Q₁₀.

22. The facial or neck patch or mask of claim 1, wherein a plurality of anti-aging effective compounds are applied simultaneously or coordinately with the patch or mask to yield enhanced treatment or prophylaxis of skin aging in the subject.

23. The facial or neck patch or mask of claim 1, wherein the anti-aging effective compound is selected from the group consisting of: a ubiquinone; plastoquinone; vitamin A; vitamin B₆; vitamin C; vitamin D; vitamin E; glutathione; carnitine; arginine; taurine; cysteine; methionine; superoxide dismutase; catalase; alpha lipoic acid; dihydrolipoic acid; proanthocyanadins; and melatonin.

24. The facial or neck patch or mask of claim 1, which provides controlled, time-release delivery of one or more anti-aging effective compound(s) for a prolonged delivery time period selected from: 1-4 hours; 4-8 hours; or more than 8 hours; to effectively prevent or reverse one or more symptoms of facial skin aging in the subject.

25. The facial or neck patch or mask of claim 1, comprising a facial mask shaped and dimensioned to conform to multiple facial skin areas.

26. The facial or neck patch or mask of claim 1, further comprising a separate or integral, self-contained or externally charged thermal element.

27. The facial or neck patch or mask of claim 26, wherein the thermal element is a heating element to facilitate delivery and activity of the anti-aging effective compound by increasing the temperature at a target skin area.

28. The facial or neck patch or mask of claim 26, wherein the thermal element is a thermal gel that can function as a heating and/or cooling element.

29. The facial or neck patch or mask of claim 26, wherein the thermal element is permanently or removably enclosed within a pocket or cavity attached to or surrounded by the patch or mask body.

30. The facial or neck patch or mask of claim 1, wherein the anti-aging effective compound is formulated with a polymeric delivery vehicle, hydrogel, or biodegradable polymer or matrix.

31. The facial or neck patch or mask of claim 1, wherein the patch or mask body is comprised of a polymer or fiber material.

32. A method for treating facial and/or neck skin aging in a mammalian subject comprising:

applying a facial or neck patch or mask to a facial and/or neck skin area(s) in the subject, wherein the patch or mask comprises a flexible patch body formed of a porous material sized and dimensioned to conform to one or more contoured facial and/or neck skin area(s) of the subject; and

removably securing the patch or mask to the facial and/or neck skin area(s) by attachment means connected to the patch body, wherein the patch or mask delivers an anti-aging effective compound to the facial skin and/or neck skin area(s) from an undersurface of the patch or mask body after the patch or mask has been applied to yield enhanced delivery and bioavailability of the anti-aging compound to underlying facial and/or neck skin area(s) to substantially prevent or alleviate one or more symptoms of facial and/or neck skin aging therein.